

## Naranjo, Eugenia

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**From:** Paul S. Brzozowski <paul.brzozowski@tierra-inc.com>  
**Sent:** Thursday, January 31, 2013 5:34 PM  
**To:** Naranjo, Eugenia  
**Subject:** RE: Givaudan Information

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**Paul S. Brzozowski, P.E.**

Tierra Solutions, Inc.  
(O)732.246.5851 / (C)908.328.8395

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**From:** Naranjo.Eugenia@epamail.epa.gov [mailto:Naranjo.Eugenia@epamail.epa.gov]  
**Sent:** Thursday, January 31, 2013 3:34 PM  
**To:** Paul S. Brzozowski  
**Subject:** Re: Givaudan Information

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-----"Paul S. Brzozowski" <paul.brzozowski@tierra-inc.com> wrote: -----

To: Ray Basso/R2/USEPA/US@EPA  
From: "Paul S. Brzozowski" <paul.brzozowski@tierra-inc.com>  
Date: 10/15/2012 03:56PM  
Cc: Eugenia Naranjo/R2/USEPA/US@EPA  
Subject: Givaudan Information

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Ray –

As discussed last week during our Bay meeting, I am providing you with a PDF portfolio containing the following:

1. **Givaudan 1951 Memo – Recovery of G11 in Sewer Ditch and Pond** – this is a memo from one of the chemists at Givaudan that speaks to the potential of recovering their product (G-11) from sediment collected in their on-site pond which was part of their “old sewer system”. G-11 is HCP, also known as Hexachlorophene (refer to document contained in the attached PDF portfolio titled “**NIOSH – Givaudan Site excerpt**”). HCP used 2,4,5,TCP as the building block for the process operation. It was the 2,4,5 TCP that was contaminated with Dioxin. The 1951 G-11 recovery memo states that the sediments in the pond contain 50% to 70% G-11 and as such Givaudan was looking to recover it. Given that the on-site pond contained this much “product”, then the pond was certainly not used solely for stormwater retention as we were all lead to believe. As the memo states, the pond in fact was “...a part of the our old sewer system.”. As we presented to the USEPA back in March of this year, the pond overflowed with rainfall events greater than 2” and discharged to the DOT stormwater system at River Rd. Refer to the following documents all of which are included in the attached PDF Portfolio.
  - a. **Dec. 1992 Givaudan Letter Re Lagoon Operations and Overflow – Page 2** – the highlighted paragraph of this document (page 2) clearly indicates that the pond overflowed with certain rain events and that it discharged off-site.
  - b. **1970 Givaudan Site Plan with Process Sewers, Storm Sewers and Swales** – this document/figure shows the storm pond, the drainage swale which would have captured the pond overflow and the connection of the swale to the DOT storm sewer on River Rd.
  - c. **1970 Givaudan Site Sewer System** – the figure shows the sewer system, pond and drainage swale as well. However it also shows a “diversion valve pit” potentially connecting the process sewer to the pond which could explain the high concentrations of G-11 in the pond sediment as described in the 1951 Memo. Unfortunately we have no further information on the “diversion valve pit”.
  - d. **Givaudan Site Storm Water Overland Drainage Patterns and Discharge** – this document contains 2 pages; first page shows a figure prepared by Tierra/Arcadis that provides an interpretation of the stormwater drainage patterns as developed from information available at the time of our presentation to USEPA earlier this year. The second page presents a 1983 figure, from Givaudan, that also shows storm water drainage patterns.
  - e. **1951 and 1961 aerials** – this document contains two aerial photos and identifies the location of the storm pond (referred to in the 1951 Givaudan memo) on each aerial.

I believe the information presented in this 1951 Givaudan memo, backed by the other attached information, clearly supports Tierra’s understanding that the Givaudan facility had a connection between their process sewers and storm water sewers/infrastructure and as a result waste from the Givaudan facility was discharged to the Passaic. I hope this new information (the 1951 memo – which was held back from Givaudan’s document production until after the RM 10.9 allocation was finalized), provides sufficient basis for USEPA to 1) make further inquiries with Givaudan to gather additional documentation and 2) to make further inquiries with Givaudan/CPG to conduct additional sampling/analysis for Dioxin and HCX in the Yantacaw Pond (as well as other potential off-site locations). While HCX may not be a human health related COC, it is in fact a very specific marker/tracer for Givaudan’s operations.

Thanks and feel free to call me with any questions.

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**Paul S. Brzozowski, P.E.**

*Tierra Solutions, Inc.*

*2 Tower Center Boulevard, 10th Floor*

*East Brunswick, New Jersey 08816*

*(O) 732.246.5851*

*(C) 908.328.8395*

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